

Atty. Dkt. No. 034536/0220

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Tod R. SMEAL, *et al.*
Title: PHOSPHOSPECIFIC PAK ANTIBODIES AND DIAGNOSTIC KITS
Appl. No.: 10/716,936
Filing Date: November 20, 2003
Examiner: Unassigned
Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop PATENT APPLICATION
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date

3/5/04

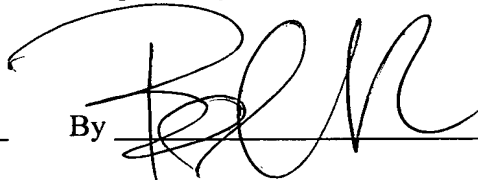
FOLEY & LARDNER, LLP

Customer Number: 22428

Telephone: (202) 672-5475

Facsimile: (202) 672-5399

By



Beth A. Burrous

Attorney for Applicant

Registration No. 35,087

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: _____ (use as many sheets as necessary) Sheet _____ of 3	Complete if Known <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Application Number</td> <td>10/716,936</td> </tr> <tr> <td>Filing Date</td> <td>11/20/03</td> </tr> <tr> <td>First Named Inventor</td> <td>Tod R. SMEAL</td> </tr> <tr> <td>Group Art Unit</td> <td>Unassigned</td> </tr> <tr> <td>Examiner Name</td> <td>Unassigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>034536/0220</td> </tr> </table>	Application Number	10/716,936	Filing Date	11/20/03	First Named Inventor	Tod R. SMEAL	Group Art Unit	Unassigned	Examiner Name	Unassigned	Attorney Docket Number	034536/0220
Application Number	10/716,936												
Filing Date	11/20/03												
First Named Inventor	Tod R. SMEAL												
Group Art Unit	Unassigned												
Examiner Name	Unassigned												
Attorney Docket Number	034536/0220												

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office ³	Number ⁴	Kind Code ⁵ (if known)			

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	C01	CALLOW et al., "Requirement for PAK4 in the Anchorage-independent Growth of Human Cancer Cell Lines", (2002) J. Biol. Chem., Vol. 227, Issue 1, 550-558.	
	C02	MANSEY et al., A brain serine/threonine protein kinase activated by Cdc42 and Rac 1", (1994) Nature 367, 40-46.	
	C03	BAGRODIA et al., "Identification of a Mouse p21 ^{Cdc42/Rac} Activated Kinase", (1995) J. Biol. Chem., Vol. 270, 22731-22737.	
	C04	KNAUS et al., "Regulation of Human Leukocyte p21-Activated Kinases Through G Protein-Coupled Receptors", (1995) Science 269, 221-223.	
	C05	MARTIN et al., "A novel serine kinase activated by rac1/CDC42Hs-dependent autophosphorylation is related to PAK65 and STE20", (1995) EMBO J. 14, 1970-1978.	
	C06	TEO et al., "Identification and Molecular Cloning of a p21 ^{Cdc42/Rac} -activated Serine/Threonine Kinase That is Rapidly Activated by Thrombin in Platelets", (1995) J. Biol. Chem. 270, 26690-26697.	
	C07	ABO et al., "PAK4, a novel effector for Cdc42Hs, is implicated in the reorganization of the actin cytoskeleton and in the formation of filopodia", (1998) EMBO J. 17, 6527-6540.	
	C08	SELLS et al., "Human p21-activated kinase (Pak1) regulates actin organization in mammalian cells", (1997) Curr. Biol. 7, 202-210.	

Examiner Signature _____	Date Considered _____
--------------------------	-----------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, PO Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/716,936
		Filing Date	11/20/03
Date Submitted:		First Named Inventor	Tod R. SMEAL
		Group Art Unit	Unassigned
(use as many sheets as necessary)		Examiner Name	Unassigned
		Attorney Docket Number	034536/0220
Sheet	2	of	3

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
MAR 05 2004 U.S. PATENT & TRADEMARK OFFICE	C09	SELLS et al., "Temporal and Spatial Distribution of Activated Pak1 in Fibroblasts", (2000) J. Cell Biol. 151, 1449-1457.	
	C10	HUANG et al., "Neutrophils Stimulated with a Variety of Chemoattractants Exhibit Rapid Activation of p21-Activated Kinases (Paks): Separate Signals are Required for Activation and Inactivation of Paks", (1998) Mol. Cell. Biol. 18, 7130-7138.	
	C11	ZHOA et al., "A Conserved Negative Regulatory Region in αPAK: Inhibition of PAK Kinases Reveals Their Morphological Roles Downstream of Cdc42 and Rac1", (1998) Mol. Cell. Biol. 18, 2153-2163.	
	C12	EDWARDS et al., "Activation of LIM-kinase by Pak1 couples Rac/Cdc42 GTPase signaling to actin cytoskeletal dynamics", (1999) Nature Cell Biol. 1, 253-259.	
	C13	KIOSSES et al., "A Role for p21-Activated Kinase in Endothelial Cell Migration", (1999) J. Cell Biol. 147, 831-844.	
	C14	FROST et al., "Differential Effects of PAK1-activating Mutations Reveal Activity-dependent and - independent Effects on Cytoskeletal Regulation", (1998) J. Biol. Chem. 273, 28919-28198.	
	C15	EBY et al., "Actin cytoskeleton organization regulation by the PAK family of protein kinases", (1998) Curr. Biol. 8, 967-970.	
	C16	QUI et al., "An essential role for Rac in Ras transformation", (1995) Nature 374, 457-459.	
	C17	QUI et al., "A role for Rho in Ras transformation", (1995) Proc. Natl. Acad. Sci. U.S.A. 92, 11781-11785.	
	C18	QUI et al., "Cdc42 Regulates Anchorage-Independent Growth and Is Necessary for Ras transformation," (1997) Mol. Cell. Biol. 17, 3449-3458.	
	C19	KHOSRAVI-FAR et al., "Activation of Rac1, RhoA, and Mitogen-Activated Protein Kinases Is Required for Ras Transformation", (1995) Mol. Cell. Biol. 15, 6443-6453.	
	C20	PRENDERGAST et al., "Critical role of Rho in cell transformation by oncogenic Ras", (1995) Oncogene 10, 2289-2296.	
	C21	KEELY et al., "Cdc42 and Rac1 induce intergen-mediated cell motility and invasiveness through PI(3)K", (1997) Nature 390, 632-636.	
	C22	TANG et al., "Kinase-Deficient Pak1 Mutants Inhibit Ras Transformation of Rat-1 Fibroblasts", (1997) Mol. Cell. Biol. 17, 4454-4464.	
	C23	TANG et al., "A role for Pak protein kinases in Schwann cell transformation", (1998) Proc. Natl. Acad. Sci. U.S.A. 95, 5139-5144.	
	C24	TANG et al., "The Akt Proto-oncogene Links Ras to Pak and Cell Survival Signals", (2000) J. Biol. Chem. 275, 9106-9109.	

Examiner Signature	Date Considered
-----------------------	--------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, PO Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: _____ (use as many sheets as necessary) Sheet _____ of 3		Complete if Known <table border="1"> <tr> <td>Application Number</td> <td>10/716,936</td> </tr> <tr> <td>Filing Date</td> <td>11/20/03</td> </tr> <tr> <td>First Named Inventor</td> <td>Tod R. SMEAL</td> </tr> <tr> <td>Group Art Unit</td> <td>Unassigned</td> </tr> <tr> <td>Examiner Name</td> <td>Unassigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>034536/0220</td> </tr> </table>		Application Number	10/716,936	Filing Date	11/20/03	First Named Inventor	Tod R. SMEAL	Group Art Unit	Unassigned	Examiner Name	Unassigned	Attorney Docket Number	034536/0220
Application Number	10/716,936														
Filing Date	11/20/03														
First Named Inventor	Tod R. SMEAL														
Group Art Unit	Unassigned														
Examiner Name	Unassigned														
Attorney Docket Number	034536/0220														

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	C25	OSADA et al., "A domain containing the Cdc42/Rac interactive binding (CRIB) region of p65 ^{PAK} inhibits transcriptional activation and cell transformation mediated by the Ras-Rac pathway", (1997) FEBS Lett. 404, 227-233.	
	C26	LIN et al., "Specific Contributions of the Small GTPases Rho, Rac, and Cdc42 to Dbl Transformation", (1999) J. Biol. Chem. 274, 23633-23641.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, PO Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.